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Patent claims

1. Process for the preparation of coated finely divided inorganic solids, characterised in that the surface of finely divided inorganic solids particles is coated with at least two different organic additives, at least one additive comprising a wetting agent, dispersing agent or deflocculating agent and the proportion of additives being not more than 15 wt.% of the coated solids.
2. Process according to claim 1, characterised in that the proportion of additives is not more than 10 wt.% of the coated solids.
3. Process according to claim 1 or 2, characterised in that the proportion of additives is not more than 5 wt.% of the coated solids.
4. Process according to any one of claims 1 to 3, characterised in that there are used as the finely divided inorganic solids, separately or in the form of a mixture, titanium dioxide, barium sulfate, lithopone, zinc sulfide, zinc oxide, calcium carbonate, calcium sulfate, iron oxide, silicon dioxide, talcum, kaolin, mica, aluminium oxide, aluminium hydroxide, metal titanates, coloured titanates (e.g. chrome nickel titanates), zirconium oxide, magnesium oxide, hydrotalcite, chalk, mixed-phase pigments, anticorrosive pigments, inorganic flameproofing pigments, black pigments (e.g. iron oxide black), inorganic special-effect pigments, or metal nitrides, carbides and borides.

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5. Process according to any one of claims 1 to 4, characterised in that the wetting, dispersing or deflocculating agent comprises one or more of the following substances: alkali metal salts or ammonium salts of organic acids (e.g. salts of poly(meth)acrylic acid), alkali metal salts of acrylate or methacrylate copolymers, polyphosphates (inorganic or organic polyphosphates, e.g. poly(meth)acrylate phosphates), generally poly(meth)acrylates, polyethers, anionically modified polyethers, fatty alcohol polyglycol ethers, modified polyurethanes or anionically active aliphatic esters.
6. Process according to any one of claims 1 to 5, characterised in that the added amount of wetting, dispersing or deflocculating agent is from 0.001 to 10 wt.%, based on the finished coated product.
7. Process according to claim 6, characterised in that the added amount of wetting, dispersing or deflocculating agent is from 0.001 to 5 wt.%, based on the finished coated product.
8. Process according to any one of claims 1 to 7, characterised in that the second organic additive comprises one or more of the following substances: carboxylic acids, soaps, metal soaps, alcohols (e.g. 1,1,1-trimethylolpropane), pentaerythritol, neopentyl glycol, polyglycols (e.g. polyethylene glycol), polyethylene glycol ethers, organic esters (e.g. neopentyl glycol dibenzoate), silanes, siloxanes, silicone oils, organic sulfones of the formula RSO_2R , organic ketones ($\text{R}-(\text{C}=\text{O})-\text{R}$), organic

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nitriles (RCN), organic sulfoxides (R_2 -SO₂), organic amides (R -(C=O)-NR'R or R -(S=O)-ONR'R), fatty acid esters or fatty acid amides.

- 5 9. Process according to any one of claims 1 to 8, characterised in that the added amount of the second organic additive is from 0.01 to 10 wt.%, based on the finished coated product.
- 10 10. Process according to claim 9, characterised in that the added amount of the second organic additive is from 0.01 to 5 wt.%, based on the finished coated product.
- 15 11. Process according to any one of claims 1 to 10, characterised in that the finely divided inorganic solids are in the form of an aqueous suspension or in the form of a filter cake (paste-like or in dough form) and the two different organic additives
20 are added to the finely divided inorganic solids separately or in the form of a mixture.
12. Process according to claim 11, characterised in that the resulting suspension is dried.
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13. Process according to any one of claims 1 to 10, characterised in that the finely divided inorganic solids are in the form of a powder and are mixed with the two different organic additives in a mixer
30 and the mixture is then ground.
14. Process according to any one of claims 1 to 13, characterised in that the coated finely divided

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inorganic solids have a mean particle size d_{50} of
from 0.001 to 20 μm .

- 5 15. Process according to claim 14, characterised in
that the coated finely divided inorganic solids
have a mean particle size d_{50} of from 0.005 to 5 μm .
- 10 16. Use of the coated finely divided inorganic solids
prepared by a process according to any one of
claims 1 to 15 as an additive in plastics, in the
preparation of polymers, in surface coatings and
paints/inks, in paper production, in ceramics,
medical and cosmetic products.
- 15 17. Use according to claim 16, characterised in that
the coated finely divided inorganic solids are
dispersed in water or an organic solvent, an
antifoam being added in an added amount of up to
3 wt.%, based on the solids content of the
20 suspension.